## **CPC** COOPERATIVE PATENT CLASSIFICATION

B29B PREPARATION OR PRETREATMENT OF THE MATERIAL TO BE

**SHAPED** 

**MAKING GRANULES OR PREFORMS** 

RECOVERY OF PLASTICS OR OTHER CONSTITUENTS OF WASTE

**MATERIAL CONTAINING PLASTICS** 

## **Guide heading:**

B29B 7/00	<b>Mixing</b> Kneading ( {for preparation of dough <u>A21C 1/00</u> ; } in general <u>B01F</u> ; combined with calendering <u>B29C 43/24</u> , with injection <u>B29C 45/46</u> , with extrusion <u>B29C 47/36</u> )
B29B 7/002	. {Methods (chemical aspects C08J 3/00) }
B29B 7/005	{for mixing in batches }
B29B 7/007	{for continuous mixing }
B29B 7/02	. non-continuous, with mechanical mixing or kneading devices, i.e. batch type
B29B 7/04	with non-movable mixing or kneading devices
B29B 7/06	with movable mixing or kneading devices
B29B 7/08	shaking, oscillating or vibrating
B29B 7/085	<pre>{by means of axially movable pistons }</pre>
B29B 7/10	rotary
B29B 7/103	{with rollers or the like in casings }
B29B 7/106	{using rotary casings }
B29B 7/12	with single shaft
B29B 7/125	{having a casing closely surrounding the rotor, e.g. for masticating rubber (with more than one shaft <u>B29B 7/183</u> ); Rotors therefor ( <u>B29B 7/14</u> , <u>B29B 7/16</u> take precedence) }
B29B 7/14	with screw or helix
B29B 7/16	with paddles or arms
B29B 7/18	with more than one shaft
B29B 7/183	{having a casing closely surrounding the rotors, e.g. of Banbury type (with single shaft B29B 7/125) }
B29B 7/186	{Rotors therefor }
B29B 7/20	with intermeshing devices, e.g. screws
B29B 7/22	<ul> <li>Component parts, details or accessories</li> <li>Auxiliary operations</li> </ul>
B29B 7/24	for feeding
B29B 7/242	<pre>{in measured doses }</pre>
B29B 7/244	{of several materials }
B29B 7/246	{in mixers having more than one rotor and a casing closely surrounding the rotors, e.g. with feeding plungers }

B29B 7/248	{with plungers for introducing the material, e.g. from below (B29B 7/246 takes precedence) }
B29B 7/26	for discharging, e.g. doors
B29B 7/263	{from the underside in mixers having more than one rotor and a a casing closely surrounding the rotors }
B29B 7/266	{using sliding doors }
B29B 7/28	for measuring, controlling or regulating, e.g. viscosity control { (B29B 7/242 takes precedence) }
B29B 7/283	{measuring data of the driving system, e.g. torque, speed, power }
B29B 7/286	{measuring properties of the mixture, e.g. temperature, density ( <u>B29B 7/283</u> takes precedence) }
B29B 7/30	continuous, with mechanical mixing or kneading devices
B29B 7/32	with non-movable mixing or kneading devices
B29B 7/325	{Static mixers (in general <u>B01F 5/0602</u> ) }
B29B 7/34	with movable mixing or kneading devices
B29B 7/36	shaking, oscillating or vibrating
B29B 7/365	<pre>{by means of axially movable pistons }</pre>
B29B 7/38	rotary (B29B 7/52 takes precedence)
B29B 7/385	{fluid mixers }
B29B 7/40	with single shaft
B29B 7/401	{having a casing closely surrounding the rotor, e.g. with a plunger for feeding the material (B29B 7/407, B29B 7/42 take precedence) }
B29B 7/402	{using a rotor-stator system with intermeshing elements, e.g. teeth ( <u>B29B</u> <u>7/408</u> , <u>B29B 7/404</u> take precedence) }
B29B 7/404	{with feeding or valve actuating means, e.g. with cleaning means }
B29B 7/405	{Mixing heads ( <u>B29B 7/404</u> , <u>B29B 7/42</u> take precedence; mixing heads without moving stirrer <u>B29B 7/7457</u> ) }
B29B 7/407	{with a casing closely surrounding the rotor, e.g. with conical rotor }
B29B 7/408	{with mixing elements on a rotor co-operating with mixing elements, perpendicular to the axis of the rotor, fixed on a stator }
B29B 7/42	with screw or helix
B29B 7/421	{with screw and additionally other mixing elements on the same shaft, e.g. paddles, discs, bearings, rotor blades of the Banbury type }
B29B 7/422	{with screw sections co-operating, e.g. intermeshing, with elements on the wall of the surrounding casing }
B29B 7/423	{and oscillating axially (in general B01F 11/0057) }
B29B 7/424	{with conical screw surrounded by conical casing }
B29B 7/425	{with screw surrounded by a casing provided with grooves or cavities }
B29B 7/426	{with consecutive casings or screws, e.g. for charging, discharging, mixing }
B29B 7/427	{with independently driven screws rotating about the same axis, e.g. oscillating axially; with axially oscillating screws (B29B 7/423 takes precedence) }
B29B 7/428	{ Parts or accessories, e.g. casings, feeding or discharging means }
B29B 7/429	{Screws ( <u>B29B 7/421</u> takes precedence) }

B29B 7/44		with paddles or arms
B29B 7/46		with more than one shaft
B29B 7/465		<pre>{each shaft comprising rotor parts of the Banbury type in addition to screw parts }</pre>
B29B 7/48		with intermeshing devices, e.g. screws
B29B 7/481		{provided with paddles, gears or discs ( <u>B29B 7/482</u> takes precedence) }
B29B 7/482		{provided with screw parts in addition to other mixing parts, e.g. paddles, gears, discs }
B29B 7/483		{the other mixing parts being discs perpendicular to the screw axis }
B29B 7/484		{with two shafts provided with screws, e.g. one screw being shorter than the other (B29B 7/482 takes precedence) }
B29B 7/485		{with three or more shafts provided with screws }
B29B 7/486		<pre>{with screws surrounded by a casing provided with grooves or cavities }</pre>
B29B 7/487		<pre>{with consecutive casings or screws, e.g. for feeding, discharging, mixing }</pre>
B29B 7/488		{Parts, e.g. casings, sealings; Accessories, e.g. flow controlling or throttling devices (discharging B29B 7/582; feeding B29B 7/60) }
B29B 7/489		{Screws (B29B 7/482 takes precedence) }
B29B 7/50		with rotary casing
B29B 7/52		with rollers or the like, e.g. calenders
B29B 7/523		{co-operating with casings }
B29B 7/526		{with two or more rollers }
B29B 7/54	• • • • • • • • • • • • • • • • • • • •	with a single roller co-operating with a stationary member {other than the casing }
B29B 7/56	••••	with co-operating rollers {e.g. with repeated action, i.e. the material leaving a set of rollers being reconducted to the same set or being conducted to a next set }
B29B 7/562		{with means for axially moving the material on the rollers }
B29B 7/564		{at least one of the rollers being provided with helicoidal grooves or ridges, e.g. followed by axial extrusion }
B29B 7/566		{provided with means to take material away from a set of rollers and to reconduct it to the same set; provided with endless belts, e.g. which can be in or out of cooperation with at least one of the rollers }
B29B 7/568		{with consecutive sets of rollers or a train of rollers }
B29B 7/58		omponent parts, details or accessories uxiliary operations
B29B 7/582		{for discharging, e.g. doors }
B29B 7/584	• • •	{for mixers with rollers, e.g. wedges, guides, pressing means, thermal conditioning }
B29B 7/586		{Drives }
B29B 7/588		{cutting devices, e.g. movable cutting devices (scrapers for stripping the material from rollers $\underline{B29B\ 7/645}$ )}
B29B 7/60	• • •	for feeding, e.g. end guides for the incoming material { ( $\underline{B29B.7/7615}$ takes precedence; feeding predetermined amounts for mixing in general $\underline{B01F.15/0216}$ ) }

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B29B 7/603
                                   {in measured doses, e.g. proportioning of several materials }
B29B 7/606
                                   {specially adapted for feeding calenders or the like }
B29B 7/62
                                Rollers, e.g. with grooves (B29B 7/564 takes precedence)
B29B 7/625
                                   {provided with cooling or heating means }
B29B 7/64
                                Stripping the material from the rollers
B29B 7/645
                                   {by means of a scraper moving in the axial direction of the rollers }
B29B 7/66
                                Recycling the material { (B29B 7/566 takes precedence) }
B29B 7/68
                                Positioning of rollers
B29B 7/70
                                Conditioning of rollers, e.g. cleaning
B29B 7/72
                                Measuring, controlling or regulating
                       . . .
B29B 7/722
                                   {Safety devices }
B29B 7/724
                                   (for continuous roller mixers, e.g. calenders (B29B 7/722 takes precedence)
                      . . . .
B29B 7/726
                                   {Measuring properties of mixture, e.g. temperature or density (B29B 7/724
                                   takes precedence) }
B29B 7/728
                                   {Measuring data of the driving system, e.g. torque, speed, power, vibration
                                   (B29B 7/724 takes precedence) }
B29B 7/74
                          using other mixers or combinations of {mixers, e.g. of } dissimilar mixers; {Plant }
B29B 7/7404
                             (Mixing devices specially adapted for foamable substances (B29B 7/76 takes
                             precedence) }
B29B 7/7409
                                {with supply of gas }
                       . . .
B29B 7/7414
                                   (<u>B29B</u>) {with rotatable stirrer, e.g. using an intermeshing rotor-stator system (<u>B29B</u>)
                       . . . .
                                   7/7423 takes precedence) }
B29B 7/7419
                                   {with static or injector mixer elements }
                       . . . .
B29B 7/7423
                                       {preceded or followed by rotatable stirring device }
                       . . . . .
B29B 7/7428
                                   {Methodical aspects }
B29B 7/7433
                                {Plants }
                      . . .
B29B 7/7438
                             {Mixing guns, i.e. hand-held mixing units having dispensing means (B29B 7/761,
                       . .
                             B29B 7/7678 take precedence) }
B29B 7/7442
                                {with driven stirrer }
                       . . .
B29B 7/7447
                                {including means for feeding the components }
                       . . .
B29B 7/7452
                                {for mixing components by spraying them into each other; for mixing by
                                intersecting sheets }
B29B 7/7457
                             {Mixing heads without moving stirrer (B29B 7/7438, B29B 7/76 take precedence) }
                      . .
B29B 7/7461
                             {Combinations of dissimilar mixers }
                       . .
B29B 7/7466
                             {Combinations of similar mixers }
                      . .
B29B 7/7471
                             {Mixers in which the mixing takes place at the inlet of a mould, e.g. mixing
                      . .
                             chambers situated in the mould opening }
B29B 7/7476
                             {Systems, i.e. flow charts or diagrams; Plants }
B29B 7/748
                                {Plants (B29B 7/7433, B29B 7/7485, B29B 7/7495 take precedence) }
B29B 7/7485
                                {with consecutive mixers, e.g. with premixing some of the components }
B29B 7/749
                                   {with stirring means for the individual components before they are mixed
                      . . . .
                                   together }
B29B 7/7495
                                {for mixing rubber }
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B29B 7/76
                             {Mixers } with stream-impingement mixing head
B29B 7/7605
                                {having additional mixing arrangements (B29B 7/7673 takes precedence) }
                      . . .
B29B 7/761
                                {of gun-type, i.e. hand-held units having dispensing means (B29B 7/7678 takes
                                precedence) }
B29B 7/7615
                                {characterised by arrangements for controlling, measuring or regulating, e.g. for
                                feeding or proportioning the components }
B29B 7/7621
                                   (involving introducing a gas or another component in at least one of the
                                   components }
B29B 7/7626
                                   {using measuring chambers of piston or plunger type (B29B 7/7621 takes
                                   precedence; for mixing in general <u>B01F 15/0454</u>) }
B29B 7/7631
                                {Parts; Accessories (B29B 7/7684 takes precedence) }
B29B 7/7636
                                   { Construction of the feed orifices, bores, ports }
B29B 7/7642
                                      { Adjustable feed orifices, e.g. for controlling the rate of feeding }
B29B 7/7647
                                   { Construction of the mixing conduit module or chamber part }
B29B 7/7652
                                   { Construction of the discharge orifice, opening or nozzle }
B29B 7/7657
                                      { Adjustable discharge orifices, openings or nozzle openings, e.g. for
                                      controlling the rate of dispensing }
B29B 7/7663
                                {the mixing head having an outlet tube with a reciprocating plunger, e.g. with the
                                jets impinging in the tube }
B29B 7/7668
                                   {having a second tube intersecting the first one with the jets impinging in the
                                   second tube }
B29B 7/7673
                                   {having additional mixing arrangements (B29B 7/7668 takes precedence) }
B29B 7/7678
                                   {of the gun type, i.e. hand-held units }
B29B 7/7684
                                   {Parts; Accessories }
B29B 7/7689
                                      { Plunger constructions }
B29B 7/7694
                                         { comprising recirculation channels; ducts formed in the plunger }
B29B 7/78
                             by gravity, e.g. falling particle mixers
B29B 7/80
                         Component parts, details or accessories
                         Auxiliary operations (B29B 7/22, B29B 7/58 take precedence, {cleaning mixers B01F
                         <u>15/00019</u> })
B29B 7/801
                             {Valves }
B29B 7/802
                             { Constructions or methods for cleaning the mixing or kneading device (cleaning in
                             general B08B)
B29B 7/803
                                { Cleaning of mixers of the gun type, stream-impigement type, mixing heads }
B29B 7/805
                                   { Cleaning of the mixing conduit, module or chamber part }
B29B 7/806
                                   { Cleaning of the discharge opening, e.g. orifice of the dispenser }
B29B 7/807
                                   { Cleaning of the central body of the plunger }
B29B 7/808
                                   { Cleaning of the plunger tip }
                      . . . .
B29B 7/82
                             Heating or cooling
                      . .
B29B 7/823
                                {Temperature control }
B29B 7/826
                                {Apparatus therefor }
B29B 7/84
                             Venting or degassing {;Removing liquids, e.g. by evaporating components }
B29B 7/842
                                {Removing liquids in liquid form }
B29B 7/845
                                (Venting, degassing or removing evaporated components in devices with rotary
                      . . .
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	stirrers }
B29B 7/847	{Removing of gaseous components before or after mixing }
B29B 7/86	for working at sub- or superatmospheric pressure { ( <u>B01F 13/06</u> takes precedence) }
B29B 7/88	Adding charges, {i.e. additives }
B29B 7/885	{with means for treating, e.g. milling, the charges } (B29B 7/905 takes precedence) ]
B29B 7/90	Fillers or reinforcements {e.g. fibres }
B29B 7/905	<pre>{with means for pretreatment of the charges or fibres }</pre>
B29B 7/92	Wood chips or wood fibres
B29B 7/94	Liquid charges
B29B 7/945	{involving coating particles }
B29B 9/00	Making granules (in general B01J; chemical aspects C08J 3/12)
B29B 9/02	by dividing preformed material
B29B 9/04	in the form of plates or sheets
B29B 9/06	in the form of filamentary material, e.g. combined with extrusion
B29B 9/065	{under-water, e.g. underwater pelletizers }
B29B 9/08	. by agglomerating smaller particles
B29B 9/10	. by moulding the material, i.e. treating it in the molten state
B29B 9/12	characterised by structure or composition
B29B 9/14	fibre-reinforced
B29B 9/16	. Auxiliary treatment of granules
B29B 11/00	<b>Making preforms</b> ( <u>B29C 61/06</u> takes precedence; { combined with blow-moulding <u>B29C 49/02</u> , with thermoforming <u>B29C 51/02</u> ; making preforms for manufacturing of light guides <u>B29D 11/00721</u> })
B29B 11/02	by dividing preformed material, e.g. sheets, rods
B29B 11/04	. by assembling preformed material
B29B 11/06	. by moulding the material
B29B 11/08	Injection moulding
B29B 11/10	Extrusion moulding
B29B 11/12	Compression moulding
B29B 11/14	characterised by structure or composition
B29B 11/16	comprising fillers or reinforcement { (non-woven fabrics per se <u>D04H 1/00</u> , <u>D04H</u>
	3/00) }

B29B 13/00	Conditioning or physical treatment of the material to be shaped (chemical aspects C08J 3/00) {heating, cooling or curing during shaping B29C 35/00; Thermal after-treatment B29C 71/02 }
B29B 13/007	. {Treatment of sinter powders }
B29B 13/02	by heating ( <u>B29B 13/06</u> , <u>B29B 13/08</u> take precedence)
B29B 13/021	{Heat treatment of powders }
B29B 13/022	{Melting the material to be shaped }
B29B 13/023	{Half-products, e.g. films, plates }
B29B 13/024	{Hollow bodies, e.g. tubes or profiles }
B29B 13/025	{Tube ends }
B29B 13/04	<ul> <li>by cooling { (cooling moulded articles or half products <u>B29C 35/16</u>) }</li> </ul>
B29B 13/045	{of powders or pellets }
B29B 13/06	<ul> <li>by drying (<u>B29B 13/08</u> takes precedence; {drying moulded articles or half products <u>B29C 37/0092</u> })</li> </ul>
B29B 13/065	{of powder or pellets }
B29B 13/08	. by using wave energy or particle radiation
B29B 13/10	<ul> <li>by grinding, e.g. by triturating</li> <li>by sieving</li> <li>by filtering</li> </ul>
B29B 15/00	Pretreatment of the material to be shaped, not covered by groups <u>B29B 7/00</u> to <u>B29B 13/00</u>
<b>B29B 15/00</b> B29B 15/02	
	<ul> <li>B29B 13/00</li> <li>of crude rubber, gutta-percha, or similar substances (tapping latex A01G; Chemical</li> </ul>
B29B 15/02	<ul> <li>B29B 13/00</li> <li>of crude rubber, gutta-percha, or similar substances (tapping latex A01G; Chemical aspects C08C)</li> </ul>
B29B 15/02 B29B 15/023	<ul> <li>B29B 13/00</li> <li>of crude rubber, gutta-percha, or similar substances (tapping latex A01G; Chemical aspects C08C)</li> <li>{Breaking up rubber bales}</li> </ul>
B29B 15/02 B29B 15/023 B29B 15/026	<ul> <li>B29B 13/00</li> <li>of crude rubber, gutta-percha, or similar substances (tapping latex A01G; Chemical aspects C08C)</li> <li>{Breaking up rubber bales}</li> <li>{Baling of rubber}</li> </ul>
B29B 15/02 B29B 15/023 B29B 15/026 B29B 15/04	<ul> <li>B29B 13/00</li> <li>of crude rubber, gutta-percha, or similar substances (tapping latex A01G; Chemical aspects C08C)</li> <li>{Breaking up rubber bales}</li> <li>{Baling of rubber}</li> <li>Coagulating devices</li> </ul>
B29B 15/02 B29B 15/023 B29B 15/026 B29B 15/04 B29B 15/06	<ul> <li>B29B 13/00</li> <li>of crude rubber, gutta-percha, or similar substances (tapping latex A01G; Chemical aspects C08C)</li> <li>{Breaking up rubber bales}</li> <li>{Baling of rubber}</li> <li>Coagulating devices</li> <li>Washing devices</li> </ul>
B29B 15/02 B29B 15/023 B29B 15/026 B29B 15/04 B29B 15/06 B29B 15/08	<ul> <li>B29B 13/00</li> <li>of crude rubber, gutta-percha, or similar substances (tapping latex A01G; Chemical aspects C08C)</li> <li>{Breaking up rubber bales}</li> <li>{Baling of rubber}</li> <li>Coagulating devices</li> <li>Washing devices</li> <li>of reinforcements or fillers (chemical aspects C08J, K)</li> <li>Coating or impregnating {independently of the moulding or shaping step} (applying)</li> </ul>
B29B 15/02 B29B 15/023 B29B 15/026 B29B 15/04 B29B 15/06 B29B 15/08	<ul> <li>of crude rubber, gutta-percha, or similar substances (tapping latex A01G; Chemical aspects C08C)</li> <li>{Breaking up rubber bales}</li> <li>{Baling of rubber}</li> <li>Coagulating devices</li> <li>Washing devices</li> <li>of reinforcements or fillers (chemical aspects C08J, K)</li> <li>Coating or impregnating {independently of the moulding or shaping step} (applying liquids in general B05)</li> </ul>
B29B 15/02 B29B 15/023 B29B 15/026 B29B 15/04 B29B 15/06 B29B 15/08	<ul> <li>of crude rubber, gutta-percha, or similar substances (tapping latex A01G; Chemical aspects C08C)</li> <li>{Breaking up rubber bales }</li> <li>{Baling of rubber }</li> <li>Coagulating devices</li> <li>Washing devices</li> <li>of reinforcements or fillers (chemical aspects C08J, K)</li> <li>Coating or impregnating {independently of the moulding or shaping step } (applying liquids in general B05)</li> <li>NOTE</li> <li>Where the coating or impregnating is combined with moulding the documents</li> </ul>

B29B 15/122	{with a matrix in liquid form, e.g. as melt, solution or latex }
B29B 15/125	{by dipping }
B29B 15/127	<pre>{by spraying }</pre>
B29B 15/14	of filaments or wires
B29B 17/00	Recovery of plastics or other constituents of waste material containing plastics; ( { volume reduction of waste plastics, e.g. by mechanical compacting or melting disposal of solid waste B09B; } chemical recovery C08J 11/00)
B29B 17/0005	• {Direct recuperation and re-use of scrap material during moulding operation, i.e. feed-back of used material }
B29B 17/0026	. {by agglomeration or compacting }
B29B 17/0036	{of large particles, e.g. beads, granules, pellets, flakes, slices }
B29B 17/0042	{for shaping parts, e.g. multilayered parts with at least one layer containing regenerated plastic }
B29B 17/0047	{Compacting complete waste articles }
B29B 17/0052	<pre>{Hollow articles, e.g. bottles }</pre>
B29B 17/02	. Separating plastics from other materials
B29B 17/0206	{Selectively separating reinforcements from matrix material by destroying the interface bound before desintegrating the matrix to particles or powder, e.g. from tires or belts }
B29B 17/021	{using local heating of the reinforcement }
B29B 17/04	Disintegrating plastics, { e.g. by milling } ( <u>B29B 9/02</u> , <u>B29B 11/02</u> , <u>B29B 13/10</u> , { <u>B29B 17/02</u> } take precedence)
B29B 17/0404	{ to powder }
B29B 17/0408	<pre>{ using cryogenic systems }</pre>
B29B 17/0412	{ to large particles, e.g. beads, granules, flakes, slices }
Guide heading:	
B29B 2009/00	Making granules (in general <u>B01J</u> ; chemical aspects <u>C08J 3/12</u> )
B29B 2009/12	. characterised by structure or composition
B29B 2009/125	Micropellets, microgranules, microparticles
B29B 2009/16	. Auxiliary treatment of granules
B29B 2009/161	Absorbing, i.e. introducing a gas, a liquid or a solid material into the granules
B29B 2009/163	Coating, i.e. applying a layer of liquid or solid material on the granule
B29B 2009/165	Crystallizing granules
B29B 2009/166	Deforming granules to give a special form, e.g. spheroidizing, rounding
B29B 2009/168	Removing undesirable residual components, e.g. solvents, unreacted monomers Degassing

B29B 2013/00	Conditioning or physical treatment of the material to be shaped (chemical aspects C08J 3/00) {heating, cooling or curing during shaping B29C 35/00; Thermal after-treatment B29C 71/02 }
B29B 2013/002	. Extracting undesirable residual components, e.g. solvents, unreacted monomers, from material to be moulded
B29B 2013/005	<ul> <li>Degassing undesirable residual components, e.g. gases, unreacted monomers, from material to be moulded</li> </ul>
B29B 2013/02	. by heating ( <u>B29B 13/06</u> , <u>B29B 13/08</u> take precedence)
B29B 2013/023	{Half-products, e.g. films, plates }
B29B 2013/026	Obtaining a uniform temperature over the whole surface of films or tubes
B29B 2013/027	Obtaining a temperature gradient over the surface of films or tubes
B29B 2013/028	Obtaining a temperature gradient across the wall thickness of plates or tubes
B29B 2017/00	Recovery of plastics or other constituents of waste material containing plastics; ( { volume reduction of waste plastics, e.g. by mechanical compacting or melting disposal of solid waste B09B; } chemical recovery C08J 11/00)
B29B 2017/001	. Pretreating the materials before recovery
B29B 2017/0015	Washing, rinsing
B29B 2017/0021	Dividing in large parts
B29B 2017/0026	. {by agglomeration or compacting }
B29B 2017/0031	<ul> <li>Melting the outer surface of compressed waste, e.g. for forming briquets by expelling the compressed waste material through a heated tool</li> </ul>
B29B 2017/0047	{Compacting complete waste articles }
B29B 2017/0052	{Hollow articles, e.g. bottles }
B29B 2017/0057	Externally powered deformation tools, e.g. tools being part of relatively big non domestic installations, powered by motors
B29B 2017/0063	Manually driven deformation tools, e.g. tools being part of domestic installations
B29B 2017/0068	Softening the hollow articles by heat and causing permanent deformation
B29B 2017/0073	Removing caps or labels during deformation
B29B 2017/0078	Maintaining the deflated state, e.g. by mounting original screw lids after deformation
B29B 2017/0084	Deflating the hollow articles by vacuum  Details of the nozzles used in the vacuum generating devices.
B29B 2017/0089	<ul> <li>Recycling systems, wherein the flow of products between producers, sellers and consumers includes at least a recycling step, e.g. the products being fed back to the sellers or to the producers for recycling purposes</li> </ul>
B29B 2017/0094	. Mobile recycling devices, e.g. devices installed in truck trailers
B29B 2017/02	. Separating plastics from other materials

B29B 2017/0203	Separating plastics from plastics
B29B 2017/0213	Specific separating techniques
B29B 2017/0217	Mechanical separating techniques devices therefor
B29B 2017/022	Grippers, hooks, piercing needles, fingers, e.g. mounted on robots
B29B 2017/0224	Screens, sieves
B29B 2017/0227	Vibratory or shaking tables
B29B 2017/0231	Centrifugating, cyclones
B29B 2017/0234	using gravity, e.g. separating by weight differences in a wind sifter
B29B 2017/0237	using density difference
B29B 2017/0241	in gas, e.g. air flow
B29B 2017/0244	in liquids
B29B 2017/0248	Froth flotation, i.e. wherein gas bubbles are attached to suspended particles in an aerated liquid
B29B 2017/0251	Hydropulping for converting the material under the influence of water into a slurry, e.g. for separating laminated plastic from paper
B29B 2017/0255	<ul> <li>using different melting or softening temperatures of the materials to be separated</li> </ul>
B29B 2017/0258	using heated surfaces for selective softening or melting of at least one plastic ingredient
B29B 2017/0262	using electrical caracteristics
B29B 2017/0265	Electrostatic separation
B29B 2017/0268	Separation of metals
B29B 2017/0272	Magnetic separation
B29B 2017/0275	using chemical sensors, e.g. analysing gasified constituents
B29B 2017/0279	Optical identification, e.g. cameras or spectroscopy
B29B 2017/0282	using information associated with the materials, e.g. labels on products
B29B 2017/0286	Cleaning means used for separation
B29B 2017/0289	Washing the materials in liquids
B29B 2017/0293	Dissolving the materials in gases or liquids
B29B 2017/0296	Dissolving the materials in aqueous alkaline solutions, e.g. NaOH or KOH
B29B 2017/04	<ul> <li>Disintegrating plastics, { e.g. by milling } (<u>B29B 9/02</u>, <u>B29B 11/02</u>, <u>B29B 13/10</u>, { <u>B29B 17/02</u> } take precedence)</li> </ul>
B29B 2017/0416	Cooling the plastics before disintegration, e.g. freezing
B29B 2017/042	<ul> <li>Mixing disintegrated particles or powders with other materials, e.g. with virgin materials</li> </ul>
B29B 2017/0424	<ul> <li>Specific disintegrating techniques devices therefor</li> </ul>
B29B 2017/0428	Jets of high pressure fluid
B29B 2017/0432	Abrasive blasting, i.e. the jets being charged with abrasives
B29B 2017/0436	Immersion baths
B29B 2017/044	Knives
B29B 2017/0444	Cutting wires, e.g. vibrating wires
B29B 2017/0448	Cutting discs

B29B 2017/0452		the discs containing abrasives
B29B 2017/0456		Pressing tools with calibrated openings, e.g. in sizing plates, for desintegrating solid materials
B29B 2017/046		Extruder as pressing tool with calibrated die openings for forming and disintegrating pasty or melted material
B29B 2017/0464		Solid state shear extrusion pulverisation
B29B 2017/0468		Crushing, i.e. disintegrating into small particles
B29B 2017/0472		Balls or rollers in a container
B29B 2017/0476	• • • •	Cutting or tearing members, e.g. spiked or toothed cylinders or intermeshing rollers
B29B 2017/048		Cutter-compactors, e.g. of the EREMA type
B29B 2017/0484		Grinding tools, roller mills or disc mills
B29B 2017/0488		Hammers or beaters
B29B 2017/0492		Projecting the material on stationary or moving impact surfaces or plates
B29B 2017/0496		Pyrolysing the materials
Guide heading:		
B29B 2911/00	Indexing (not used	g scheme related to making preforms for blow-moulding bottles or the like
B29B 2911/14	. Layer	configuration, geometry, dimensions or physical properties of preforms for
		moulding bottles or the like (not used)
B29B 2911/14006	blow-	
	blow-	moulding bottles or the like (not used)
B29B 2911/14006	blow-	moulding bottles or the like (not used) ver configuration (not used)
B29B 2911/14006 B29B 2911/14013	blow-lay	moulding bottles or the like (not used)  ver configuration (not used)  monolayered
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402	blow-	moulding bottles or the like (not used)  ver configuration (not used)  monolayered  at neck portion
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026	blow-lay	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033	blow-	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404	blow-	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404 B29B 2911/14046	blow-	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404 B29B 2911/14046 B29B 2911/14053	blow-	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered  at neck portion
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404 B29B 2911/14046 B29B 2911/14053 B29B 2911/1406	blow-	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered  at neck portion  partially
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404 B29B 2911/14046 B29B 2911/14053 B29B 2911/1406 B29B 2911/1406	blow lay	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered  at neck portion  partially  at flange portion
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404 B29B 2911/14046 B29B 2911/14053 B29B 2911/14066 B29B 2911/14066 B29B 2911/14073	blow lay	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered  at neck portion  partially  at flange portion  partially
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404 B29B 2911/14046 B29B 2911/14053 B29B 2911/14066 B29B 2911/14066 B29B 2911/14073 B29B 2911/14073	blow lay	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered  at neck portion  partially  at flange portion  partially  at body portion
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404 B29B 2911/14046 B29B 2911/14053 B29B 2911/1406 B29B 2911/1406 B29B 2911/14073 B29B 2911/1408 B29B 2911/1408	blow lay	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered  at neck portion  partially  at flange portion  partially  at body portion  partially  at body portion  partially
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404 B29B 2911/14046 B29B 2911/14053 B29B 2911/14066 B29B 2911/14066 B29B 2911/14073 B29B 2911/14086 B29B 2911/14086 B29B 2911/14086 B29B 2911/14093	blow lay	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered  at neck portion  partially  at flange portion  partially  at body portion  partially  at body portion  partially  at bottom portion
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404 B29B 2911/14046 B29B 2911/14053 B29B 2911/14066 B29B 2911/14066 B29B 2911/14073 B29B 2911/1408 B29B 2911/1408 B29B 2911/1408 B29B 2911/14093 B29B 2911/14093 B29B 2911/141	blow lay	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered  at neck portion  partially  at flange portion  partially  at body portion  partially  at body portion  partially  at bottom portion  partially
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/14046 B29B 2911/14046 B29B 2911/14053 B29B 2911/14066 B29B 2911/14066 B29B 2911/14073 B29B 2911/1408 B29B 2911/1408 B29B 2911/1408 B29B 2911/14093 B29B 2911/141	blow lay	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered  at neck portion  partially  at flange portion  partially  at body portion  partially  at body portion  partially  at bottom portion  partially  at bottom portion  partially  having at least one layer
B29B 2911/14006 B29B 2911/14013 B29B 2911/1402 B29B 2911/14026 B29B 2911/14033 B29B 2911/1404 B29B 2911/14046 B29B 2911/14053 B29B 2911/14066 B29B 2911/14066 B29B 2911/14073 B29B 2911/1408 B29B 2911/14086 B29B 2911/14093 B29B 2911/141 B29B 2911/14106 B29B 2911/14106 B29B 2911/14106	blow lay	moulding bottles or the like (not used)  yer configuration (not used)  monolayered  at neck portion  at flange portion  at body portion  at bottom portion  multilayered  at neck portion  partially  at flange portion  partially  at body portion  partially  at body portion  partially  at bottom portion  partially  having at least one layer  having at least two layers

B29B 2911/1414	having at least two layers being injected	
B29B 2911/14146	having at least three layers being injected	
B29B 2911/14153	having more than three layers being injected	
B29B 2911/1416	having at least one layer being extruded	
B29B 2911/14166	having at least two layers being extruded	
B29B 2911/14173	having at least three layers being extruded	
B29B 2911/1418	having more than three layers being extruded	
B29B 2911/14186	having at least one layer being thermoformed	
B29B 2911/14193	having at least two layers being thermoformed	
B29B 2911/142	having at least three layers being thermoformed	
B29B 2911/14206	having more than three layers being thermoformed	
B29B 2911/14213	having at least one layer being compression moulded	
B29B 2911/1422	having at least two layers being compression moulded	
B29B 2911/14226	having at least three layers being compression moulded	
B29B 2911/14233	having more than three layers being compression mou	lded
B29B 2911/1424	having at least one layer being applied using techniques not cov B29B 2911/14133 to B29B 2911/14213	ered by
B29B 2911/14246	having at least two layers being applied using said technique	S
B29B 2911/14253	having at least three layers being applied using said techr	iques
B29B 2911/1426	having more than three layers being applied using said	l techniques
B29B 2911/14266	Type of said techniques not covered by <u>B29B 2911/14133</u> to <u>2911/14213</u>	<u>B29B</u>
B29B 2911/14273	Spray coating	
B29B 2911/1428	Dip coating	
B29B 2911/14286	Powder coating	
B29B 2911/14293	Casting	
B29B 2911/143	Interaction between at least two layers	
B29B 2911/14306	by welding	
B29B 2911/14313	by using adhesives	
B29B 2911/1432	Geometry (not used)	
B29B 2911/14326	Variable wall thickness	
B29B 2911/14333	Variable diameter	
B29B 2911/1434	Ribs or protrusions	
B29B 2911/14346	Internal separating wall	
B29B 2911/14353	Special shape	
B29B 2911/1436	Special overall shape	
B29B 2911/14366	Conical	
B29B 2911/14373	Axially asymmetrical	
B29B 2911/1438	Elliptic or oval cross-section shape	
B29B 2911/14386	Rectangular cross-section shape	
B29B 2911/14393	Hexagonal cross-section shape	
B29B 2911/144	Shape allows stacking or nesting	

B29B 2911/14406	Special shape of specific parts of preform
B29B 2911/14413	Special lip, i.e. very top of preform neck
B29B 2911/1442	Special neck
B29B 2911/14426	Wide-mouth
B29B 2911/14433	Closure retaining means
B29B 2911/1444	Threads
B29B 2911/14446	Interrupted threads
B29B 2911/14453	Inner threads
B29B 2911/1446	No threads
B29B 2911/14466	Tamper-evident band retaining ring
B29B 2911/14473	Special flange
B29B 2911/1448	Special body
B29B 2911/14486	Special bottom
B29B 2911/14493	Special sprue, i.e. injection mark
B29B 2911/145	Special pinch-off portion
B29B 2911/14506	Auxiliary parts or inserts
B29B 2911/14513	Handle
B29B 2911/1452	Closure
B29B 2911/14526	Transport means
B29B 2911/14533	Dispensing spout
B29B 2911/1454	Parts to assist orientation of preform, e.g. in mould
B29B 2911/14546	at neck portion
B29B 2911/14553	at flange portion
B29B 2911/1456	at body portion
B29B 2911/14566	at bottom portion
B29B 2911/14573	Preform, i.e. neck, flange, body and bottom, made of several individual parts
B29B 2911/1458	Finish neck ring
B29B 2911/14586	Mentioned dimensions (not used)
B29B 2911/14593	Wall thickness
B29B 2911/146	of the lip, i.e. the very top of the preform neck
B29B 2911/14606	of the neck
B29B 2911/14613	of the threads
B29B 2911/1462	of the tamper-evident band retaining ring
B29B 2911/14626	of the flange
B29B 2911/14633	of the body
B29B 2911/1464	of the bottom
B29B 2911/14646	of a layer
B29B 2911/14653	Diameter, D
B29B 2911/1466	of the lip, i.e. the very top of the preform neck
B29B 2911/14666	of the neck
B29B 2911/14673	of the threads
B29B 2911/1468	of the tamper-evident band retaining ring

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B29B 2911/14686
                                   of the flange
                      . . . .
B29B 2911/14693
                                   of the body
                      . . . .
B29B 2911/147
                                   of the bottom
B29B 2911/14706
                                   of a layer
                      . . . .
B29B 2911/14713
                                Height, length, L
                      . . .
B29B 2911/1472
                                   of the lip, i.e. the very top of the preform neck
                      . . . .
B29B 2911/14726
                                   of the neck
                      . . . .
B29B 2911/14733
                                   of the threads
                      . . . .
B29B 2911/1474
                                   of the tamper-evident band retaining ring
                      . . . .
B29B 2911/14746
                                   of the flange
                      . . . .
B29B 2911/14753
                                   of the body
                      . . . .
B29B 2911/1476
                                   of the bottom
                      . . . .
B29B 2911/14766
                                   of a layer
                      . . . .
B29B 2911/14773
                                Ratio L/D
                      . . .
B29B 2911/1478
                      . . .
                                Angle
B29B 2911/14786
                                   of the lip, i.e. the very top of the preform neck
                      . . . .
B29B 2911/14793
                                   of the neck
                      . . . .
B29B 2911/148
                                   of the threads
                      . . . .
B29B 2911/14806
                                   of the tamper-evident band retaining ring
                      . . . .
B29B 2911/14813
                                   of the flange
                      . . . .
B29B 2911/1482
                                   of the body
                      . . . .
B29B 2911/14826
                                   of the bottom
                      . . . .
B29B 2911/14833
                                   of a layer
                      . . . .
B29B 2911/1484
                                Curvature, e.g. radius
                      . . .
B29B 2911/14846
                                   of the lip, i.e. the very top of the preform neck
                      . . . .
B29B 2911/14853
                                   of the neck
                      . . . .
                                   of the threads
B29B 2911/1486
B29B 2911/14866
                                   of the tamper-evident band retaining ring
                      . . . .
B29B 2911/14873
                                   of the flange
                      . . . .
B29B 2911/1488
                      . . . .
                                   of the body
B29B 2911/14886
                                   of the bottom
                      . . . .
B29B 2911/14893
                                   of a layer
                            Mentioned values not covered by B29B 2911/14586
B29B 2911/149
                      . .
B29B 2911/14906
                                Crystallinity
                      . . .
B29B 2911/14913
                                   at the neck portion
                      . . . .
B29B 2911/1492
                                   at the flange portion
                      . . . .
B29B 2911/14926
                                   at the body portion
                      . . . .
B29B 2911/14933
                                   at the bottom portion
                      . . . .
B29B 2911/1494
                                Surface roughness
                      . . .
B29B 2911/14946
                                   at the neck portion
                      . . . .
B29B 2911/14953
                                   at the flange portion
                      . . . .
B29B 2911/1496
                                   at the body portion
                      . . . .
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B29B 2911/14966 .... at the bottom portion

B29B 2911/14973 ... Optical properties

B29B 2911/1498 ... Weight

B29B 2911/14986 ... Composition

B29B 2911/14993 .... Recycled material